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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,033	08/16/2006	Changling Liu	034226 M 003	9375

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SMITH, GAMBRELL & RUSSELL  
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WASHINGTON, DC 20036

EXAMINER
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ZAREK, PAUL E

ART UNIT	PAPER NUMBER
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1617

MAIL DATE	DELIVERY MODE
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11/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,033	<b>Applicant(s)</b> LIU ET AL.	
	<b>Examiner</b> Paul Zarek	<b>Art Unit</b> 4161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 6, 8, and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/15/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1-9 are currently pending. This is the first Office Action on the merits of the claim(s).

### ***Election/Restrictions***

2. Applicant's election without traverse of Group II, drawn to a derivative of formula I wherein A<sub>1</sub>, A<sub>2</sub>, and A<sub>3</sub> are C, X<sub>1</sub> is CH, X<sub>2</sub> is O or S, and X<sub>3</sub> is NR<sub>8</sub>, and the elected species of compound 2, wherein R<sub>1</sub> and R<sub>2</sub> are -CH<sub>3</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> is -H, X<sub>1</sub> is -CH-, X<sub>2</sub> is =O, X<sub>3</sub> is -NCH<sub>3</sub>, A<sub>1</sub> and A<sub>3</sub> are -CH-, and A<sub>2</sub> is -CCl in the reply filed on 09/22/2008 is acknowledged.
3. Claims 1-5 and 7 read on the elected claims. Claims 6, 8, and 9 are withdrawn as being drawn to a non-elected Group.

### ***Priority***

4. Applicant's claim for the benefit of a prior-filed international application CN05/00195 (filed on 02/17/2005) under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 365(c) as follows: Applicant has not claimed the benefit of the international application in either the specification or an applicant data sheet. The benefit of the international application cannot be granted until the specification is amended to reflect the benefit claim. Therefore, the effective filing date of the international application is 08/16/2006.

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5. Receipt is acknowledged of a certified copy of the 200410021172.3 application referred to in the oath or declaration or in an application data sheet. If this copy is being filed to obtain the benefits of the foreign filing date under 35 U.S.C. 119(a)-(d), applicant should also file a claim for such priority as required by 35 U.S.C. 119(b). If the application being examined is an original application filed under 35 U.S.C. 111(a) (other than a design application) on or after November 29, 2000, the claim for priority must be presented during the pendency of the application, and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior foreign application. See 37 CFR 1.55(a)(1)(i). If the application being examined has entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the claim for priority must be made during the pendency of the application and within the time limit set forth in the PCT and Regulations of the PCT. See 37 CFR 1.55(a)(1)(ii). Any claim for priority under 35 U.S.C. 119(a)-(d) or (f) or 365(a) or (b) not presented within the time period set forth in 37 CFR 1.55(a)(1) is considered to have been waived. If a claim for foreign priority is presented after the time period set forth in 37 CFR 1.55(a)(1), the claim may be accepted if the claim properly identifies the prior foreign application and is accompanied by a grantable petition to accept an unintentionally delayed claim for priority. See 37 CFR 1.55(c). No foreign priority is given to the instant application. Applicant can gain the benefit of foreign priority by amending specification to include the claim to the international application PCT/CN05/00195.

***Information Disclosure Statement***

6. The information disclosure statement filed on 11/15/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because there was no English translation provided of the foreign patents. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu, et al. (Chinese Patent Application No. 200410021172.3, 2005).

9. Claim 1 of the instant application is drawn to a substituted azole compound of formula I comprising the substituents A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, X<sub>1</sub>, X<sub>2</sub>, and X<sub>3</sub>. Claims 2-5 further limit the identities of the above-mentioned substituents. Compound 2 (the

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identities of whose substituents are listed above) is the elected species. Claim 7 is drawn to a composition comprising the azole compound of formula I as an active ingredient wherein the weight percentage of the active ingredient is from 0.1% to 99%.

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10. Liu, et al., teach a substituted azole fungicide wherein the substituents A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, X<sub>1</sub>, X<sub>2</sub>, and X<sub>3</sub> are defined as in the instant application (Claims 1-5). Liu, et al., also teach a composition wherein formula I comprises between 0.1% and 99% by weight of the composition. Therefore, Liu, et al., anticipate all the limitations of the rejected claims.

### ***Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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13. Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

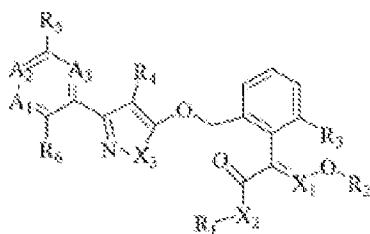
Desbordes, et al. (International Application No. WO99/33812, 1999).

14. Claim 1 of the instant application is drawn to a substituted azole compound of formula I comprising the substituents A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, X<sub>1</sub>, X<sub>2</sub>, and X<sub>3</sub>.

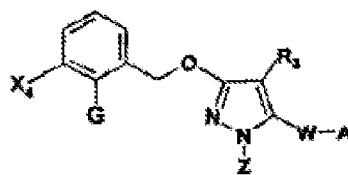
Claims 2-5 further limit the identities of the above-mentioned substituents. Compound 2 is the elected species, wherein R<sub>1</sub> and R<sub>2</sub> are -CH<sub>3</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> is -H, X<sub>1</sub> is -CH-, X<sub>2</sub> is =O, X<sub>3</sub> is -NCH<sub>3</sub>, A<sub>1</sub> and A<sub>3</sub> are -CH-, and A<sub>2</sub> is -CCl. Claim 7 is drawn to a composition comprising the azole compound of formula I as an active ingredient wherein the weight percentage of the active ingredient is from 0.1% to 99%.

15. Desbordes, et al., teach numerous substituted azole compositions which possess fungicidal abilities (abstract). Although Desbordes, et al., does not teach the specific species elected by Applicant, it teaches numerous compounds that individually and as a group render the elected species obvious. The generic formulae are shown below. (I don't see any formula below --- only a black background) Change to "Print View" to see.

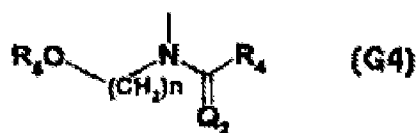
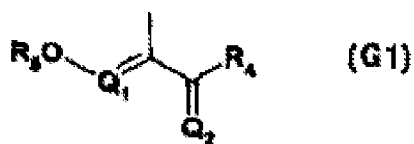
Instant



Desbordes, et al.



wherein G is:



Desbordes, et al., disclose compounds 100 and 103 (pg 47), wherein W is a bond and the G is G1. Compounds 100 and 103 differ from the elected species in that the phenyl ring (A) is either 2-cyanophenyl or 2-fluorophenyl, respectively, rather than 4-chlorophenyl. King teaches that all halogens and -CN are bioisosteres of each other (pg 208, Table 2). Positional isomers are expected to possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). (MPEP §2144.09(II)) Desbordes, et al., also discloses compounds 50, 65, 70, and 88, wherein W is a bond and the G is G4. In this case, the disclosed compounds differ from the elected species



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in that G4 contains a trivalent nitrogen, and that the phenyl ring (A) is either 4-chlorophenyl (compound 50), 4-trifluoromethylphenyl (compound 65), 4-fluorophenyl (compound 70), or 4-cyanophenyl (compound 88). In this case, not only are -CN and the halogens bioisosteres, King also teaches the equivalence of trivalent nitrogens and trivalent carbons (pg 208, Table 1).

Desbordes, et al., tests substituted azoles, including compounds 50, 65, 70, and 88, for their fungicidal activity against various fungi. In each case, the substituted azole, as the active ingredient, comprised approximately 50% of the composition (60 mg azole in 60 mL aqueous solution) (Examples B1-B6). Given that Desbordes, et al., teach that numerous substituted azole compounds which are very similar to the elected species, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the elected species based upon the compound taught by Desbordes, et al.

### ***Conclusion***

16. No claims are allowed.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Zarek whose telephone number is (571) 270-5754. The examiner can normally be reached on Monday-Thursday, 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PEZ

/SREENI PADMANABHAN/  
Supervisory Patent Examiner, Art Unit 1617